IN THE CLAIMS

Please amend Claims 1, 3 and 5-7 as follows:

1. (Currently Amended) A double diffused field effect transistor made in accordance with the method comprising:

providing a substrate of a first conductivity type;

introducing at least ~~one~~ two dopant species of said first conductivity type, but with different diffusivities, into a surface of the substrate so that the substrate has a nonuniform doping profile;

forming an epitaxial layer of said first conductivity type over said substrate;

forming one or more body regions of a second conductivity type within said epitaxial layer;

forming a plurality of source regions of said first conductivity type within said body regions; and

forming a gate region adjacent to said one or more body regions,

wherein said introducing step is performed prior to said step of forming an epitaxial layer.

2. (Original) A double diffused field effect transistor made in accordance with the method of claim 1 wherein the step of forming the gate region includes the steps of:

forming a plurality of trenches within said epitaxial layer;

forming a first insulating layer that lines said trenches; and

forming a polysilicon conductor within said trenches and overlying the first insulating layer.

3. (Currently Amended) A double diffused field effect transistor, comprising:

a substrate of a first conductivity type;

at least ~~one~~ two dopant species of said first conductivity type, but with different diffusivities, incorporated into a surface of the substrate so that the substrate has a nonuniform doping profile, said nonuniform doping profile having a dopant concentration that is greatest at a given depth below a surface layer of said substrate and which decreases with increasing distance away from said given depth;

an epitaxial layer of said first conductivity type located over said surface layer of said substrate;

one or more body regions of a second conductivity type disposed within said epitaxial layer;

a plurality of source regions of said first conductivity type located within said body regions; and

a gate region adjacent to said one or more body regions.

4. (Original) The double diffused field effect transistor of claim 3 wherein said gate region includes:

a plurality of trenches located within said epitaxial layer;

a first insulating layer that lines said trenches; and

a polysilicon conductor located within said trenches and overlying the first insulating layer.

5. (Currently Amended) The double diffused field effect transistor of claim 3 wherein said at least ~~one~~ two dopant species is introduced into the substrate by ion implantation.

6. (Currently Amended) The double diffused field effect transistor of claim 3 wherein said at least ~~one~~ two dopant species is selected from the group consisting of arsenic, antimony and phosphorous.

7. (Currently Amended) The double diffused field effect transistor of claim 3 wherein said substrate has a substantially uniform doping profile prior to introducing said at least ~~one~~ two dopant species.

8. (Original) The double diffused field effect transistor of claim 3 further comprising an electrode layer disposed on a surface of the substrate opposite the body regions.